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ENTOMOLOGICAL NEWS

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Two New Species of Lasiestra from Colorado (Lepidoptera, Phalaenidae).

By A. GLENN RICHARDS, JR., University of Pennsylvania, Philadelphia, Pennsylvania.

Lasiestra coloradensis new species.

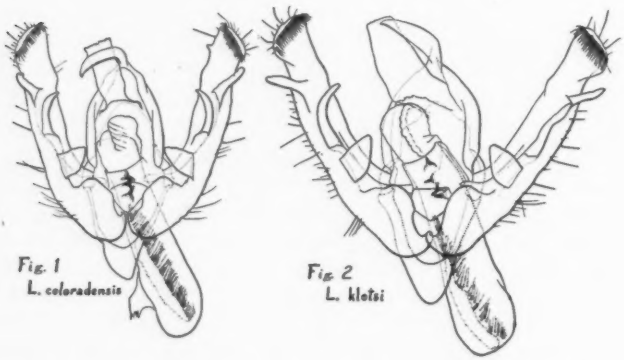
Antennae of male serrate and fasciculate. Vestiture of head composed of light-colored hairs the apical portions of which are dark. Vestiture of thorax mixed hairs and narrow scales; mottled color due to the hairs and scales having light bases, darker apices and sometimes white tips. Basal abdominal tuft colored like thorax. Tibiae, especially of metathoracic legs, heavily fringed with long, light-colored hairs.

Fore wing brownish-grey, moderately infuscated. T. a. line black, excurved across cell and strongly angled in on anal vein. Claviform spot faintly indicated by black scales. Orbicular spot round, dirty white, with a darker center, and defined toward base and apex of cell by black. Reniform light, with dark center, and defined by some black scales. T. p. line light, defined by preceding black scales and succeding fuscous line. Subterminal line grey, defined by preceding fuscous shade with black dashes between the veins. Narrow black terminal line. Cilia checkered fuscous and light brown, with a dark line through their center. Hind wing fuscous, the basal half slightly lighter; faint discal spot, lighter postmedial line, blackish terminal line, and cilia mixed fuscous and light brown with a trace of a dark line through their center. Beneath both wings lighter, with dark discal spots and postmedial lines; terminal part of fore wing and apex of hind wing fuscous; cilia as above.

Expance: 26 mm.

Male genitalia: Essential characters shown in figure 1. Corona with 20–22 spines. Right harpé with subterminal prong on costal margin. Aedoeagus with some 70–75 simple spines in a row and three large tuberculate spines.

Holotype: ♂, Rock Creek, vicinity of Colorado Springs, Colorado; July 10, 1935 (Alexander B. Klots, collector). Dr. Klots writes that the specimen was collected in the neighborhood of the Fountain Valley School cabin at Rock Creek, about 10 miles west of Colorado Springs; altitude 8000–8500 ft., and that this region is a mixed *Pinus ponderosa*—spruce—fir forest that really represents Canadian zone with an abnormally high mixture of Transition zone due to aridity. Type (unique) in the collections of the Academy of Natural Sciences of Philadelphia.



This new species closely resembles *L. leucocycla* Staudinger, races of which are found in Greenland, Labrador, New Foundland, the White Mountains of New Hampshire, Alberta and Alaska. In maculation and general appearance *L. coloradensis* is closest to *L. leucocycla poca* B. & Benj. from Alberta. From this (and the other races of *leucocycla*) it differs in its browner color, the absence of clear white, and especially the dark hind wings. On the basis of maculation alone, *L. coloradensis* would

probably be placed as a new southern race of *L. leucocycla*. It is described as a distinct species because of the male genitalia, particularly the three large tuberculate spines on the vesica; these tuberculate spines are totally lacking in the three races of *L. leucocycla* of which slides are available for examination (*preblei* Benj., *hampa* Sm., and *moeschleri* staud.).

Lasiestra klotsi new species.

Male antennae serrate and fasciculate. Vestiture of head, thorax and basal abdominal tuft composed of long hairs which are light-colored with darker apices and a general olivaceous appearance in mass. Tibiae heavily fringed with long hairs.

For wing grey with an olivaceous cast and with dark grey or black markings. Basal line black, interrupted on radial stem. A large yellowish-olive patch filling antemedial space below cell, this patch traversed by a line of fuscous scales along the anal vein. T. a. line black, erect through cell, then excurved with inward angulation on anal vein. Claviform spot absent. Orbicular spot represented by a light yellowish-olive area in cell just beyond t. a. line. Reniform spot a yellowish-olive line preceded by dark grey and black shading and defined outwardly by a black line. T. p. line grey, defined by preceding heavy black shading, angled out on veins. At inner margin t. a. and t. p. lines joined by solid black shading below anal vein. Subterminal line grey defined by preceding darker grey; incomplete, absent between veins 4 and 6 (M_1 to M_3) and for a short distance just below vein 2 (Cu_2). No terminal line. Cilia dark grey checkered by a few light scales at the ends of the veins. Hind wing fuscous, darker discal spot, dark postmedial line followed by a light line near costa and inner margin; cilia mixed and with white tips. Beneath both wings dirty white, basal and terminal areas suffused with fuscous-grey, dark discal spots, and fore wing with diffuse postmedial line, hind wing with clearer postmedial line.

Expance: 32 mm.

Male genitalia: Essential characters shown in figure 2. Aedoeagus with a row of about 60 simple spines and four large tuberculate spines.

Holotype: ♂, Hall Valley, Park Co., Colorado, altitude 11,000 to 12,000 ft., July 13–15, 1935 (Alexander B. Klots, collector). [In the collections of the Academy of Natural Sciences of Philadelphia.]

L. klotsi is unmistakably distinct from all the other described North American species of *Lasiestra* (and *Lasionycta*). It can be readily recognized by the olivaceous cast and by the yellowish-olive orbicular and patch below the cell in the antemedial space. The best placement of *L. klotsi* in our present lists seems to be next *L. lutcola* Smith.

A New Cambalid Diplopod.

By RALPH V. CHAMBERLIN, University of Utah.

The new species of *Nannolene* here described is based upon five type specimens taken by H. H. Keifer near Sacramento, California, on April 30, 1942. They were found under an oak log along with several individuals of another member of the Cambalidae, *Titsona sima* Chamberlin, a species previously known only from the vicinity of Oroville.

Nannolene keiferi new species

Among known species nearest to *N. cincta,* occurring from northern California to Washington, but a much smaller species (13 mm. in length as against 25 mm.), consisting of fewer segments. It differs in gonopods from those of *cincta* as indicated below.

Body having the usual general proportions and appearance of species of *Nannolene,* but slightly constricted back of the first segment. Segmental furrows deep and rather broad.

Typically light brown, with darker, blackish annuli on most of the segments; lower surface and legs yellowish. Head with a dark band between eyes, yellowish below.

Ocelli forming a black triangular patch; ocelli typically in 4 vertical or transverse series; e.g., 8, 7, 5, 3, a total of 23.

Anal valves exceeding the caudal rounded end of the last tergite.

First legs of male moderately reduced, with terminal article short and distally rounded, its claw abortive.

Gonopods of male in structure closest to those of *N. cincta.* The anterior sternite with tongue similarly broad distally but proportionally longer. The coxal piece of anterior gonopod obliquely truncate distally, with distoectal angle similarly the more produced, but less so than in *cincta,* the distal edge being straight instead of incurved.

Number of segments, 46 to 53.

Length, about 13 mm.; diameter, .83 mm.

Locality.—CALIFORNIA: Sacramento district, April 30, 1942. Five specimens taken under an oak log by H. H. Keifer. Types in author's collection; paratypes in the Academy of Natural Sciences of Philadelphia.

New Species of Syrphidae (Diptera) of the Genera Baccha and Mesogramma.

By FRANK M. HULL, University of Mississippi.

In this paper I present the description of six new Syrphid flies from South America and the West Indies. The types, except where designated, are in the author's collection.

Baccha (Mimocalla) polista n. sp.

Related to *capitata* Loew. Face yellow, hind femora black on ventral surface; mesonotum with prominent yellow vittae.

Male. Length 15 mm. Head: face yellow, orange in the middle, sides and upper part of front yellow, broadly shining black around the protuberant antennal process. Black dot on lunula. Antennae blackish, lighter below. Thorax: mesonotum dull black with two, widely separated, wide, posteriorly attenuated golden pollinose vittae, a similar short one in front of the scutellum. Lateral margin in front of the suture, a yellow vitta in front of the post calli and all of the scutellum except the black central disk yellow. Mesopleura brown on anterior half, pro,- upper sterno-, anterior metapleura, the

squamae and fringe all yellow. Abdomen: elongate, pedicellate. First segment dark brown except anterior corners. Second segment medium brown, the base narrowly yellowish and hyaline. Third and fourth segments black, with rather narrow, basal, yellow fascia, complete to the margins. Fifth segment linearly yellowish on the basal margin except in the middle. A pair of apical transverse spots posteriorly. Legs: yellow, the femora more orange, the hind femora orange-brown and ventrally black throughout their length with black pile ventrally and laterally and reddish brown pile dorsally. Hind tibiae yellow on basal two-fifths, brownish in the middle, orange apically. Wings: hyaline; costal cell yellow, stigmal cell light brown, third vein and subapical cross vein with characteristic dip and flexure; alulae large.

Female. Similar to the male, the abdomen a little wider, the front black throughout the middle, widely yellow on the sides.

Holotype: male, allotype a female and four paratypes, Nova Teutonia, BRAZIL, (Fritz Plaumann), [Fluke collection].

Baccha zobeide n. sp.

Related to *zita* Curran. The mesopleura is metallic black, the wing nearly hyaline.

Male. Length 10 mm. Head: face and front yellow, the latter obscurely brown in the middle, with thick long black pile. Lunula with a black dot. Antennae orange-brown. Thorax: mesonotum metallic black with a pair of short anterior wide brownish pollinose vittae and the intervening black divided by a brownish line. Sides of mesonotum and humeri yellow, scutellum yellow with abundant long black pile, the disc a little browner and black ventral fringe. Pleura metallic black. Abdomen: moderately slender, elongate, dark brown, sides of the first segment yellow, second segment with a narrow transverse widely separated spot on each side past the middle and behind it an opaque brown spot meeting above. Third segment with larger, lateral yellow spot in the middle of each side. Fourth segment with a large irregular yellow spot on each side just before the middle. Fifth wholly shining black. Legs: yellowish, the femora light brown, hind pair darker, yellow just past

the middle and again at apex, their tibiae brown on discal half, their basitarsi dark brown and the remaining joints pale. Wings: nearly hyaline, stigma dark brown, costal cell pale, alulae well developed.

Holotype: male. Nova Teutonia, BRAZIL, (Fritz Plaumann), [Fluke collection].

Baccha anona n. sp.

Near *crocata* Austen, but second abdominal segment at least twice as long as wide.

Female. Length 8.5 mm. Head: face and front light yellow, the latter with a linear brown line, black dot on lunula and black pile. Antennae orange, brown above, arista black. Thorax: mesonotum brassy black with a pair of moderately wide, well separated, pronounced yellow vittae over two-thirds the length of mesonotum and posteriorly with a short similar median streak; the lateral margins widely and the humeri and scutellum are pale yellow, the latter from a side view brown on disc with a few long black hairs and three or four black fringe hairs. Pleura yellow, broadly black behind. Abdomen: spatulate, the first segment yellow, brown posteriorly, the second is dark brown with beyond the middle a transverse yellow fascia not reaching the sides. Third segment with a pair of medial, narrowly separated, yellow vittae beginning at base, expanding posteriorly and just beyond the middle emitting a diagonal stripe to the lateral margins. Fourth segment similar, the vittae longer and the diagonal stripe is given off from the base. Fifth segment with a pair of complete central vittae, and shorter, sublateral, subbasal vittae. Legs: entirely pale yellow, the hind femora with a dark subapical annulus. Wings: pale brown, the alulae narrow, equally developed throughout.

Holotype: female. Puyo, Oriente, ECUADOR. Dec. 3–15, 1938, 1000 meters, (F. M. and H. H. Brown), [Fluke collection].

Notes on Some Cuculliinae (Phalaenidae, Lepidoptera). III.

On the Identity of Glaea pastillicans Morrison and the Species of the Genus Chaetaglaea New Genus.

By J. G. Franclemont, Ithaca, N. Y.

In the early winter of 1940 Mr. Henry Engel sent me specimens of a moth that some collectors were considering to be *Harpaglaea pastillicans* (Morrison). At that time, I had not decided as to what moth this name referred. Morrison's type of *Glaea pastillicans* being apparently lost, inquiries not having brought its whereabouts to light, I had only the original description to consider when attempting to identify this name.

After a careful study of the original description of *pastillicans,* it became evident that this name was a synonym of *Orthosia apiata* Grote. The most conclusive evidence for this synonymy was the reference to the red annuli surrounding the ordinary spots. Only three species of North American "Glaeines" have this feature, namely *Epiglaea apiata* (Grote), *Metaxaglaea inulta* (Grote) and *Metaxaglaea viatica* (Grote). The last species cannot be considered because the ordinary lines are dentate; only *apiata* and *inulta* have the lines more or less even; *inulta* likewise cannot be considered because the ordinary spots are extraordinarily large, and the reniform never has a dark punctiform spot in its base. Thus only *apiata* remains, and this variable species ranges in color from pale olive brown to deep purple brown, and the reniform either does or does not possess a dark punctiform spot in its base. Grote's type of *apiata* was reddish brown, a light phase, and possessed very evident ordinary lines and no dark spot in the base of the reniform. Morrison's type was of the other extreme, very dark, with obscure lines and with a dark punctiform spot in the base of the reniform; all this ample reason for Morrison to think that he had a different species; it also differed from typical *apiata* in the lack of the pale shade following the median part of the subterminal

line, but agreed with typical *apiata* in having that subterminal line reddish. The northern locality of Morrison's type precludes it being the species that Hampson called *pastillicans,* which is more southern.

I have examined over five hundred specimens of *apiata* from Maine, New Hampshire, Vermont, New York, Pennsylvania and New Jersey. These specimens showed all degrees of variation, some matching Grote's type exactly and others meeting exactly the requirements of Morrison's description.

From the foregoing discussion the following synonymy is at once apparent.

Orthosia apiata Grote, 6th Rept. Peab. Acad. Sc., 1873, 30, 1874.
Glaea pastillicans Morrison, Proc. Bost. Soc. Nat. Hist., XVII, 151, 1874.[1] New Synonymy!
Epiglaea apiata (Grote), Grote, Abhandl. Nat. Verz. Bremen, XIV, 95, 1895 (*apiata* herein designated type of *Epiglaea*!).
Epiglaea pastillicans (Morrison), Grote, Abhandl. Nat. Verz. Bremen, XIV, 95, 1895.
Epiglaea apiata (Grote), Hampson, Cat. Lep. Phal. B. M., VI, 433, pl. 106, fig. 11, 1906.
Epiglaea apiata (Grote), McDunnough, Checklist Lep. Can. and U. S., 85, 1938.

With the above synonymy a fact, it becomes obvious that *Harpaglaea* Hampson, "Cat. Lep. Phal. B. M., VI, 429, 1906," with type designated as *Glaea pastillicans* Morrison = *Harpaglaea pastillicans* (Morrison) by Hampson therein, is a synonym of *Epiglaea* Grote, "Bull. U. S. Geol. Geog. Surv., IV, 181, 1878," with type designated by Grote in the "Abhandl. Nat. Verz. Bremen, XIV, 95, 1895" as *Orthosia apiata* Grote = *Epiglaea apiata* (Grote), the generic names being isogenotypic. Since the above is so, it leaves the species placed in *Harpaglaea* by Hampson without a generic name; to remedy this condition the following generic name is proposed to replace *Harpaglaea.*

[1] It is quite evident that Grote's description appeared before Morrison's because the latter author makes reference to *apiata, inulta* and *viatica,* all described at the same time, in his description of *Glaea sericea,* which appears on the same page as the description of *pastillicans.*

CHAETAGLAEA gen. nov.

Genotype: *Chaetaglaea cerata* Franc. new species.

Proboscis well developed; palpi short, porrect, not exceeding the front, clothed with scales and moderately long hair, the third joint drooping; eyes moderate and round; antennal scape without lashes, antennae of male minutely ciliated; thorax clothed with hair and hair-like scales, with a triangular, knife-edge, anterior tuft, no posterior tuft; the fore legs with the first segment of the tarsus with 4 to 6 large spines on the outer side; abdomen distinctly flattened, fringed with lateral and anal tufts, no dorsal tufts, clothed on the dorsum with scales and hair; fore wing with the costa almost straight, the apex square.

The male genitalia of the three species of this genus vary from almost symmetrical to quite asymmetrical; this asymmetry being mostly in the sacculus. The tegumen is long and moderately broad; the vinculum is long and narrow; the valves moderately long and rather narrow in their distal half, the sacculus large and tending to be unlike on both sides, pollex present in two species, the clasper ranging from well developed to almost vestigeal. The aedoeagus is quite long and rather stout, and the vesica is armed with a single, very heavy, bulbous-based spine.

This genus differs from all the "Glaeine" genera but *Psectraglaea* by the few heavy spines on the first segment of the fore tarsus; from *Psectraglaea* it differs by its smooth and coarser vestiture and the simple antennae of the male, those of *Psectraglaea* being pectinate. The male genitalia are distinctive in the large size of the aedoeagus and the large spine of the vesica.

Three species are included in the genus.

Chaetaglaea cerata n. sp.

Head and thorax pale fawn color; the fore wing glistening, pale, pinkish fawn color; the basal line indiscernible; the antemedial line even, slightly curved, running obliquely outward from costa to inner margin, rust colored, with a narrow, pale shade on its inner side; the postmedial line even, excurved slightly from below costa to vein M_1 (Vein 6), then erect to inner margin, rust colored, with a narrow, pale shade on its

outer side; the subterminal line erect from below costa to vein R_5 (Vein 7), then sharply angled out and then running parallel to the outer margin; terminal line a series of small black dots in the interspaces; median shade very vague, just traceable as a faint line from below reniform to inner margin; reniform and orbicular about equal in size, the orbicular nearly circular, the reniform slightly more elliptical, both of the same color as the ground, and with pale annuli; the veins on the disk of the wing marked by pale lines; the fringe concolorous, edged with rusty pink; the inner margin edged with bright rust color. Hind wing pinkish fuscous, darker in the female; the fringe pinkish. The abdomen pinkish fuscous, concolorous with the hind wings; the caudal margin of each segment edged with pinkish fawn color; the lateral and anal tufts bright rufous.

Expanse: 46 mm. to 50 mm.

The male genitalia symmetrical; the uncus and tegumen moderate; the vinculum long; the valves moderately long and heavy; the clasper stout and sharply curved; pollex present, stronger on the left valve; corona evanescent; the aedoeagus long and stout, the vesica armed with a very stout spine with a subquadrate base.

This species most closely resembles *sericea,* from which it may be distinguished by its lighter color, rust colored ante- and postmedial lines, and the lack of the black spot in the base of the reniform; from *tremula,* the third and most variable species in the genus, it may be distinguished by the presence of the rust colored lines, the lack of a tooth on the antemedial line at vein 2A (1b) and the absence of the black dot in the reniform. It is usually lighter than this last species in color and has a far greater sheen to the wings; however, *tremula* varies to such a degree, that it is not safe to use color in separating this species from it.

The male genitalia differ from those of the other two species in that they are practically symmetrical, those of *sericea* and *tremula* being asymmetrical, especially the sacculus; the clasper is poorly developed in *sericea* and *tremula,* in fact almost missing in the last species, while it is well developed in the new species; *sericea* has no pollex and *tremula* the last remnants of

one; the spine in the aedoeagus of *tremula* and of *sericea* has a rounded bulbous base, not quadrate.

Holotype: ♂, Mystic, CONNECTICUT, October 6, 1924 (Hermann Wilhelm), [in Coll. Franclemont].

Allotype: ♀, Finleyville, Pennsylvania, October 27, 1937 (Henry Engel), [in Coll. Franclemont].

Paratypes: 4 ♂♂, Mystic, Connecticut, October 7–26, 1924 (Hermann Wilhelm), [3 in Coll. Engel, 1 in Coll. Franclemont]; 1 ♀, Finleyville, Pennsylvania, October 19, 1936 (Henry Engel), [in Coll. Engel]; 1 ♂, 1 ♀, Nantucket Island, Massachusetts, October 10 & 19, 1939 (C. P. Kimball), 1 ♂, Nantucket Island, Massachusetts, October 1941 (C. P. Kimball), [in Coll, Franclemont, Brower and Kimball]; 1 ♀, Chilmark,

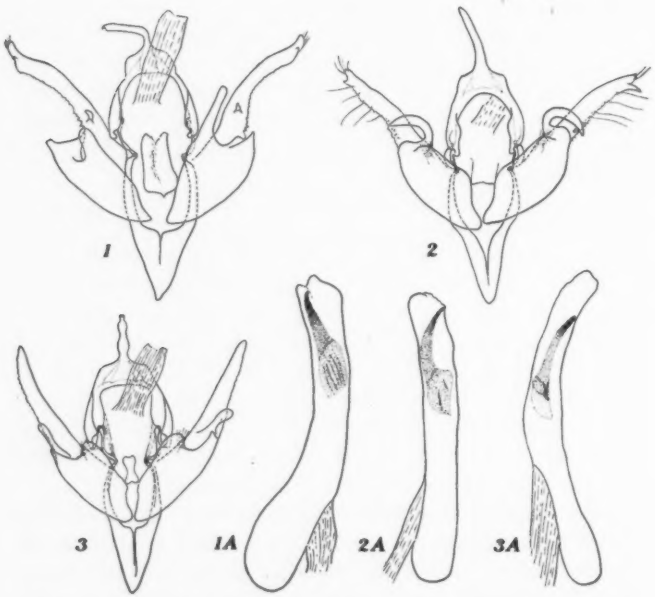


Fig. 1. Male genitalia of *Chactaglaea tremula* (Harvey). 1a. Aedoeagus of *C. tremula*. Fig. 2. Male genitalia of *Chaetaglaea cerata* Franc. (Holotype). 2a. Aedoeagus of *C. cerata*. Fig. 3. Male genitalia of *Chaetaglaea sericea* (Morrison). 3a. Aedoeagus of *C. sericea*.

Martha's Vineyard, Massachusetts, November 10, 1934 (Geo. D. Eustis), [in Coll. Brower].

CHAETAGLAEA SERICEA (Morrison)

Glaea sericea Morrison, Proc. Bost. Soc. Nat. Hist., XVII, 151, 1874.
Glaea venustula Grote, Can. Ent., VII, 84, 1875.
Epiglaea venustula (Grote), Grote, Bull. U. S. Geol. Geog. Surv., IV, 181, 1878.
Harpaglaea sericea (Morrison), Hampson, Cat. Lep. Phal. B. M., VI, 430, pl. 106, fig. 9, 1906.
Harpaglaea sericea (Morrison), McDunnough, Checklist Lep. Can. and U. S., 85, 1938.

As long as he lived, Grote was doubtful as to whether his *venustula* was synonymous with Morrison's *sericea;* it seems that the Morrison type disappeared rather early. Dr. K. L. Chamberlin of the New York State Museum at Albany, New York very kindly compared specimens of the species that it has been customary to call *sericea* with the Grote type of *venustula,* which is in the above museum, and reported them the same.

Like the type of *pastillicans,* the type of *sericea* is apparently lost, but the original description is quite adequate, and Hampson's figure of the species is good and will serve as a typical example of the moth. There can be no doubt that *venustula* is a synonym of *sericea;* the original descriptions are quite similar in context,—both authors overlooked mentioning the presence of a dark spot in the base of the reniform, this spot may be rather inconspicuous, but is nevertheless present.

237 specimens of this species from New York, Pennsylvania and New Jersey have been examined; these specimens showed some degree of variation in the depth of the ground color, the relative emphasis of the lines and the size of the ordinary spots.

CHAETAGLAEA TREMULA (Harvey) [2]

Glaea tremula Harvey, Bull. Buff. Soc. Nat. Sc., II, 276, 1874.
Epiglaea tremula (Harvey), Grote, Bull. U. S. Geol. Geog. Surv., IV, 181, 1878.

[2] I have tried to definitely identify *Cerastis adulta* Guenée, "Spec. Gen. Lep., VII (Noct. iii), 393, 1852," but the original description is somewhat vague in places, nevertheless it leads me to believe that the Abbot figure of the moth, which I have not seen, is a species of the genus *Rhynchagrotis* or *Abagrotis.* For the time being the name may stand as a *nomen inquirendum* near *viatica* as suggested by Barnes and Benjamin in the "Contrib. Nat. Hist. Lep. N. Am. v (3), 141, 1924."

Harpaglaea tremula (Harvey), Hampson, Cat. Lep. Phal. B. M., VI, 430, pl. 106, fig. 10, 1906.

Harpaglaea ‡*pastillicans* Hampson (nec Morrison), Cat. Lep. Phal. B. M,. VI, 431, text fig. 149, 1906.

Harpaglaea tremula (Harvey), McDunnough, Checklist Lep. Can. and U. S. 85, 1938.

This is the most variable species in this genus; it not only varies in the color of the ground and in the strength of the markings, but in the composition of the markings. The species reaches the maximum of variability in the southern part of its range; a series from north-central Florida presented some very striking color forms; I even suspected other species, but there was no variation in the genitalia of either sex, no matter how outstanding the color and pattern differences.

The ground color varies from pale lilaceous gray to deep purple gray, often heavily irrorate with black, and from pale lavender brown to intense russet brown, likewise often irrorate with blackish. The ordinary lines and the annuli of the ordinary spots may or may not be present and well defined; but the black spot in the base of the reniform is generally quite evident, whether the reniform is defined or not. The terminal area of the fore wing may be a glaucous white; such specimens present a very striking appearance. To attempt to name all the color forms would be an endless process and would only confuse the picture; being variations, there is every degree of intergradation between the numerous color forms. It was the custom, I think, following Hampson, to call the purplish gray forms *pastillicans* and the brownish forms *tremula,* treating them as separate species; this practice cannot be continued in anyway, not even as forms, as *pastillicans* Morrison is a synonym of *apiata* Grote. Thus only the name *tremula* remains, and under present conditions, it will be sufficient to place all the forms no matter how striking under this name.

I have examined over 700 specimens of this species; the specimens coming from New Jersey, Georgia, Florida, Texas and Arkansas; 109 genitalic slides were made of this species.

The three species discussed herein may be separated superficially by the following key.

a. The antemedial and postmedial lines always present and evenly curved, preceded and followed respectively by a very evident pale shade.
  b. The reniform rather elongated, with a black spot in the lower part; the ante- and postmedial lines blackish ..... *sericea*
  bb. The reniform more contracted, tending to be circular, with no black dot in the lower part; ante- and postmedial lines reddish rust colored..... *cerata*
aa. The antemedial line when present with a distinct tooth on vein 2A, the postmedial line slightly irregular, no evident pale shades preceding or following these lines; the lines tend to become obsolescent in some specimens, often almost wholly missing..... *tremula*

The following arrangement of the species may be substituted for that in McDunnough's Checklist, page 85, replacing *Harpaglaea* with *Chaetaglaea.*

CHAETAGLAEA Franc.
  cerata Franc.
  sericea Morr.
    venustula Grt.
  tremula Harvey
    ‡*pastillicans* Auct.

Corrections to "Notes on Some Cuculliinae (Phalaenidae, Lepidoptera) II, Ent. News, LIII, 31–35 & 63–66, 1942.

1. pages 31 and 63, the word *"Cucullinae"* in the title should read *Cuculliinae.* 2. page 34, line 26, *"hemma"* should read *hemina.* 3. page 63, line 5 and page 64, line 13, the date *"1883"* should read *1893.* J. G. F.

A New Species of Pholeomyia, with a Key to the North American Species (Diptera, Milichiidae).

By GEORGE STEYSKAL, Detroit, Michigan.

The apparently new species described below was included in a lot of flies submitted by C. S. Brimley, of the North Carolina Department of Agriculture.

Pholeomyia decorior new species

Male. Length of body, 4.7 mm.; of wing, 4.2 mm. Wholly black.

Head: front matt black, parallel-sided, as wide as length of antennae, one-half the width of one eye; six incurved lower orbital bristles with small interspersed hairs; one proclinate anterior and two reclinate posterior upper orbitals; interfrontals very small and fine, numerous and scattered; a pair of long and fine approximate proclinate bristly hairs close before anterior ocellus; lunula shining piceous, about three-quarters as high as wide, with two proclinate bristles close together in the center; a pair of large parallel reclinate postverticals, one behind each posterior ocellus, and between them a pair of small closely placed proclinate divergent bristles in a line with the posterior margin of the posterior ocelli; a pair of strong proclinate ocellars midway between anterior and posterior ocelli, also a few small hairs on the ocellar triangle. Third antennal joint round, the bare arista 3.5 times its length. Face concave, parallel-sided, with median keel, about 1.5 times as high as wide, epistoma reaching upwards about one-third the distance from lower edge of eyes to insertion of antennae. Cheeks linear. Posterior margin of eyes continuous, the posterior orbital cilia close to eyes. Palpi black, narrow, slightly wider near tip, almost reaching epistoma and with a few short bristles. Proboscis geniculate, each section nearly as long as fore tibia.

Thorax: subshining with faint brownish pruinosity on dorsum; calypters and their fringe white; halteres black. Two dorso-centrals, a pair of prescutellars equally as strong as posterior dorsocentrals and dividing the space between them into three equal parts; two postalars; two humerals; hairs of dorsum rather scattered, short and numerous. Three sternopleurals in horizontal row; four mesopleurals; one prothoracic bristle.

Legs with long and strong hairs, a fringe of 13–15 subequal slender bristles on posteroventral angle of middle femur about 1.5 to 2 times as long as thickness of femur.

Wings faintly brownish, veins brown; the costal incision two-thirds as long as greatest width of costal cell; anterior crossvein at middle of discal cell; posterior crossvein nearly vertical, its own length from wing margin measured on fifth vein.

Abdomen: dorsum subshining with faint brownish pruinosity and very narrow silvery uninterrupted fasciae on anterior margin of second, third and fourth tergites, widest on second and visible only with lateral lighting. The tergites are nearly equal in length and bear sparse coarse hairs on the posterior half only, except broadly on the sides of the second tergite; a ring of larger bristles near tip of abdomen. Hypopygium small, ventral.

Holotype: male, Orton Pl., Brunswick County, NORTH CAROLINA, May 2, 1939 (D. L. Wray), returned to Dr. Brimley.

As shown in the key below this species is apparently related to *pseudodecora* and *robertsoni,* but more than either of these it resembles the description of *quadrifasciata* Hendel (1932, Konowia 11: 139, Bolivia), from which species, however, it differs considerably, especially in the bristling of the head.

Key to Males of North American Species of Pholeomyia

1. With 3 or 4 dorsocentral bristles .....2.
   With 1 or 2 dorsocentral bristles .....4.
2. Abdomen, except first tergite, silvery; thoracic bristles strong, mesopleura with about 8 bristles; calypters brown, rim blackish. (1925, Proc. U. S. Nat. Mus. 66 (18): 1—Calif.) .....*expansa* Aldrich.
   Abdomen not at all silvery .....3.
3. Sides of front nearly parallel, width of front at antennae equal to length of an antenna; abdomen concolorous with thorax or slightly more shining. (1896, Berlin. ent. Zts. 13: 50 [Cent. 8, no. 94]—eastern No. Amer., Nebr., Nev., Idaho; Tabasco [Mex.]; Puerto Rico) ..*indecora* Loew.
   Front greatly narrowed toward antennae so that its least breadth is but little more than one-half the length of an antenna; abdomen with a dull red silky sheen. (1913, Jour. N. Y. Ent. Soc. 21: 238—Hayti) ..*myopa* Melander.

4. Abdominal tergites, except first, silvery; calypters pale ...5.
   At least two tergites not wholly silvery .....6.
5. Second tergite longer than third and fourth together. (1861, Wien. ent. Monats. 5: 43—Cuba, St. Vincent Id., Ga., Tex.) .....*leucogastra* Loew.
   Tergites of uniform length. (1907, Ann. Mus. Nat. Hung. 5: 524—Ga.) .....*leucogastra* var. *dispar* Becker.
6. Second tergite with a median crescentic blackish spot on the silvery ground, third and fourth tergites wholly silvery. (1867, Verh. zool.-bot. Ges. Wien 17: 903—Mex., So. Amer.) .....*leucozona* Bilimek.
   Second tergite largely or wholly black, third and fourth not wholly silvery .....7.
7. Abdomen matt black except two large silvery lateral spots on fifth segment; hairs on posterior margin only of intermediate tergites; calypters whitish; halteres blackish. (1907, Ann. Mus. Nat. Hung. 5: 524—Ga., Ala.) *pseudodecora* Becker.
   Abdomen with silvery fasciae at anterior margin of some tergites (which may be difficultly visible); fifth tergite wholly black .....8.
8. Anterior portion of third, fourth and fifth tergites with silvery fasciae, that of fifth interrupted; length 1.5 mm. (1902, Jour. N. Y. Ent. Soc. 10: 187—Fla.) *robertsoni* Coquillett.
   Very narrow silvery fasciae on anterior margin of second, third and fourth tergites, widest on second and visible only with lateral lighting; calypters pale; halteres black; length 4.7 mm. (North Carolina)..*decorior* new species.

The genus *Paramilichia* Malloch, the sole species of which, *longiseta* Becker, has been recorded from Nicaragua by Malloch (1913), may fall within the limits of *Pholeomyia*, according to Hendel (1932).

Literature Cited

Malloch, J. R. 1913. A Synopsis of the Genera of Agromyzidae, with Descriptions of New Genera and Species. Proc. U. S. Nat. Mus., 46: 127–154, pls. 4–6.

Hendel, F. 1932. Die Ausbeute der deutschen Chaco-Expedition 1925/26. Diptera. XXX–XXXVI. Konowia, 11: 98–110; 115–145.

Enallagma davisi, a New Species from Florida (Odonata).

By MINTER J. WESTFALL, JR., Cornell University.

In the Spring of 1941, while collecting around a lake in central Florida, three males and one female of a new *Enallagma* were taken. Later searches made in the same year and during the following Spring failed to disclose additional specimens. This new species is named for my good friend, Mr. Edward M. Davis, Director of the Thomas R. Baker Museum of Natural Science at Rollins College, Winter Park, Florida.

Enallagma davisi new species.

Color: blue and black.

Holotype, male: Head black, with blue markings; antennae blackish brown; labrum, anteclypeus, and postclypeus bright blue, except for a rather wide sutural band between the frons and postclypeus which extends over a large part of the postclypeus; frons blue to base of antennae; vertex black; postocular spots blue, rather large, almost circular, with a short arm projecting toward the midline; occiput black; rear of head blue.

Prothorax black on dorsum, with a transverse stripe across middle and two lateral spots on the anterior lobe, two on median lobe, and a small median spot and two lateral stripes on posterior lobe, all of these markings blue.

Pterothorax blue, black as follows: a wide, median, middorsal line, narrowed posteriorly; a humeral stripe separated from middorsal by a pale stripe which is slightly wider than the humeral; a thread of black at second lateral suture and a larger elongated spot at base of third lateral suture followed by a hairstreak along it. Mesostigmal plates with large lateral blue spot separated from blue thoracic stripe by narrow black line. Legs brownish, femora and tibiae heavily streaked with black, appearing almost entirely black externally; coxae light, with large black mark at infraepisternal margin. Wings with veins and pterostigma dark brown or black; postnodals 11 in

front wings and 9 in hind wings; M_2 arising between 4th and 5th postnodals, almost at 5th, in one front wing, and half way between 5th and 6th in the other, in hind wings arising between 3rd and 4th, almost at 4th.

Abdomen with terga blue, marked with black as follows: large basal spot and two small lateral apical spots on segment 1, apical spot and marginal ring of 2, apical fourth to fifth of 3 to 5, two small dorsal spots located on segment 3 at about one-fourth and one-half the length of the segment from base, apical half of 6, all of 7 except an interrupted basal ring, and all of 10. Segments 8–9 blue except for an irregular, lateral, apical spot on each side of 8 which extends half the length of the segment, and a very small and hardly noticeable, lateral, apical spot on each side of 9. Superior anal appendages black, with dorsal

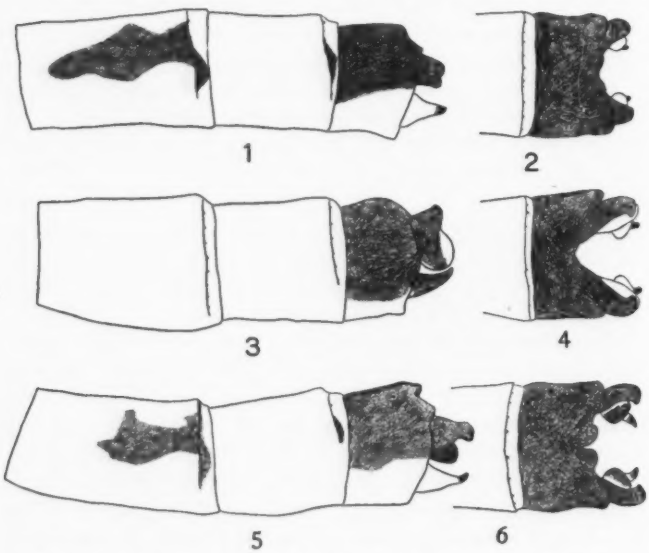


Fig. 1–2, *Enallagma laterale* Morse (Lateral and dorsal views of abdominal appendages of male). Fig. 3–4, *E. minusculum* Morse. Fig. 5–6, *E. davisi* new species.

and ventral arms, in profile view, about one-half the length of dorsum of 10; upper branch one and one-half times the length of lower, constricted before tip and knobbed; lower branch directed ventrally and medially, subrectangular in shape, with lower angles rounded, thicker than upper branch, although in strict profile view it may appear thinner because the lower branch is directed inward; inferior appendages as long as superiors, light brown, tipped with black.

Total length 31.5 mm.; abdomen, including appendages, 25; hind wing 17.

Allotype, female: In general, similar to male. Posterior lobe of prothorax without the small median spot (but this may not be constant); no dorsal pits on middle prothoracic lobes; black of legs very slightly if at all reduced; black spots present on coxae. Abdominal terga with black as follows: a large basal spot and two small lateral spots on segment 1, a median dorsal stripe on 2–10, narrowed abruptly at proximal end of 3–7 to form only a narrow streak and widened at distal end of segments. Sides of 8–10 pale, with the broad dorsal black stripe very noticeably reduced on the anterior half of segment 8. Superior anal appendages brown. Wings with light brown pterostigma; postnodals 11 in each front wing, 9 in hind wing; M_2 arising between 4th and 5th postnodals, almost at 5th, in front wing, and between 3rd and 4th in hind wing, almost at 4th.

Total length 31 mm.; abdomen, including appendages, 24; hind wing 18.

Paratype No. 1, male: Differs from holotype only in minor, variable details. Postocular spots more cuniform than circular; abdomen with an extra rounded dorsal spot at anterior third of segment 3; 5 with an extra projection of the apical spot extending anteriorly to cover at least a third of segment, and an irregular lateral streak on one side reaching from apical spot almost to middle of segment, as well as a small black spot slightly anterior to middle; apical three-fourths of 6, and all of 7 black, except for a complete basal ring on the latter; lateral apical spots on 8 slightly narrower than in holotype;

M_2 arising in front wings between 4th and 5th postnodals, almost at 5th, and in hind wings half way between 4th and 5th.

Total length 32 mm.; abdomen, including appendages, 25.5; hind wing 17.

Paratype No. 2, male: Postocular spots more cuneiform than circular; M_2 arising in front wings between 4th and 5th postnodals, almost at 5th, and between 3rd and 4th in hind wings, almost at 4th; apical two-thirds of abdominal segment 6 black; lateral apical spot of segment 8 slightly larger than in holotype.

Total length 31.5 mm.; abdomen, including appendages, 25; hind wing 17.

The specimens were collected by myself at a small grassy-edged lake about five miles north of Winter Park, Florida, just a few hundred feet west of the new Winter Park-Sanford highway. The second paratype was taken March 25, 1941, while the other specimens were collected March 21. Though the allotype was not found in copulation with the holotype, it was taken only a few feet away from it and is so similar that it can hardly be anything other than this species.

It may be worthwhile to note that the following species of Zygoptera were taken at the same lake with the types of *E. davisi: Enallagma sulcatum, E. laurenti, E. pollutum, E. concisum, E. doubledayi* (a single specimen), *Ischnura ramburii, I. kellikotti, Lestes vigilax,* and *Anomalagrion hastatum.*

The holotype and allotype are deposited in the Cornell University collection, while the first paratype is in the Williamson collection and the second in that of the Academy of Natural Sciences of Philadelphia.

Dr. Calvert informs me that there is a male specimen in the collection of the Academy of Natural Sciences of Philadelphia which is apparently of this new species. It was taken at Lake Ellis, North Carolina, May 14, 1906. He states that the pale postocular spots are smaller than those in paratype No. 2 of *E. davisi* which he saw, and elliptical instead of cuneiform. It is also a little smaller, abdomen, 23.5 mm. and h. w., 15.5 mm.

The following table of comparisons, made by Dr. P. P. Calvert in a study of types, is quoted from a letter:

	E. laterale paratype [?[1]]	*E. davisi* sp. nov. paratype	*E. minusculum* paratype [?[1]][2]
Superior appendages (profile view)	⅓ as long as segment 10, the two branches subequal in length.	⅓ as long as 10, upper branch 1½ times as long as lower branch.	"⅓ as long as 10"; "lower branch projecting a little beyond the upper, much expanded, directed downward and inward."
	Upper branch not constricted before its apex and therefore not knobbed.	Upper branch constricted before its apex and knobbed at tip.	
	Lower branch not as thick as upper branch.	Lower branch thicker than upper branch.	"Upper branch one-third as broad" (as lower).
Inferior appendages	Projecting distinctly beyond the level of the tips of the superior appendages.	Projecting only as far as the level of the tips of superior appendages.	"Equal in length to the superiors."
Coxae	With no black mark[3] (some brown on 3rd coxa).	With a black mark at the infra-episternal margin.	With a brown mark at the infra-episternal margin.
Stripes on legs	Pale brown	Black	Black
Wing-veins and pterostigma	Pale brown	Dark brown or black	Pale brown
Postnodals f.w.	10	11	10
Postnodals h.w.	8	9	9 (right), 8 (left)
Abdomen	20.5–22 mm. (Morse)	25	20 (Morse)
Hind wing	15–16 mm. (Morse)	17	14–15 mm. (Morse)

[1] While the type specimens of *E. laterale* and *E. minusculum* studied in this connection by Dr. Calvert are referred to as "paratypes," it should be noted that in Morse's collection at the Museum of Comparative Zoology at Harvard no holotypes of those species are designated. Dr. Nathan Banks tells me that the specimens are all cotypes.

[2] "Four terminal segments of abdomen missing. Characters taken from Morse's original description." P. P. C.

[3] Four undoubted specimens of *E. laterale*, two of them cotypes, studied by the writer show dark marks at the bases of the coxae.

In studying a series of ten males of *E. minusculum,* all from Centerville, Massachusetts, August 4, 1941, several things of interest were noted. *E. minusculum* lacks the light spot on the dorsum of the median prothoracic lobe and also the dark mark on the side of abdominal segment 8 which is characteristic of both *laterale* and *davisi.* It is evident that there is great variation in the size and shape of the postocular spots, some being almost circular, while others are more nearly cuneiform or elliptical. In checking the number of postnodal cross-veins in this same series of males, I find that in 12 of 20 hind wings there are 8, while in the other 8 wings there are 9. Of 20 front wings there are 14 with 10 and 6 with 11 postnodals.

The female of *E. laterale* is unknown. Several differences have been noted between the allotype of *davisi* and females of *minusculum.* The dorsal pits on the median lobe of the prothorax are absent in both species, while the light dorsal spots present on this lobe in *davisi* are not found in *minusculum,* although one specimen of the latter species seems to show an indication of such marks. The black of the dorsum of abdominal segment one extends from the base to the apex in *minusculum,* while in *davisi* there is only a basal black spot occupying about one-half of the segment. In *minusculum* segments 8 to 10 are largely blue or brownish on the sides, the black of the dorsum having a uniform width, while in *davisi* the black of the dorsum of 8 is reduced on the basal half to a narrow streak. In *minusculum* there are 9 postnodals in the front wing, 8 in the hind; in *davisi* there are 11 in the front and 9 in the hind. The female of *davisi* is also much larger than that of *minusculum;* the measurements are, *davisi,* total length 31 mm. and hind wing 18 mm., *minusculum,* total length 25 mm. and hind wing 15 mm.

I wish to express appreciation to Mrs. Howard K. Gloyd, who compared *E. davisi* with all the species of *Enallagma* in the Williamson collection and decided it was new, and most closely related to *E. laterale* Morse; to Dr. P. P. Calvert, who compared it with type material of *E. laterale* Morse and *E. minusculum* at the Academy of Natural Sciences of Philadelphia; and to Dr. D. J. Borror and Mr. E. M. Davis for material in this genus.

The Unusual Capture of a Melanistic Pieris Napi L. (Lepidoptera).

By P. Sheldon Remington and Charles L. Remington,
Elsah, Illinois.

The family Pieridae exhibits more melanism and albinism [1] than any other family of Lepidoptera found in North America. In the genus *Colias* Fabr. the writers have taken albino females of seven species: *meadii* Edw., *eurytheme* Bdv., *philodice* Godt., *interior* Scud., *alexandra* Edw., *scudderii* Reak., and *pelidne skinneri* Barnes. Other collectors have found albinism in several other species, and names have been given a number of such specimens. *Phoebis* Hbn., *Eurema* Hbn., and other pierid genera also show albinism. On the other hand, melanism is much more rarely seen. It has been found with *Colias eurytheme* and *C. philodice*, and appears not infrequently as the dimorphic female form of *Ascia monuste* L., named *phileta* Fabr. As far as the writers know, no other melanistic Pieridae have been found, and a specimen in their possession seems worthy of recording.

First, a statement by Holland relative to albinos and melanistics should be quoted: "We do not yet entirely understand what are the causes at work to produce these changes in the color, and all such aberrant specimens have interest for the scientific man. However, to name them and give them standing as subspecific forms is more or less objectionable, except in cases where they constantly occur." [2] It is to be added that such worthless naming merely encumbers the nomenclature. Consequently, the specimen here described is not given a name, and it is strongly urged that the practice of naming melanics and other freak or aberrant specimens be discontinued. These unique, or nearly so, individuals are better studied by geneticists than named by systematists.

[1] Some authors do not consider this to be true melanism and albinism. We take no stand on the question here.

[2] Holland, W. J., The Butterfly Book, revised, p. 17, 1940. [See also articles in earlier issues of this journal; i.e., vol. 41, pp. 298–302, 324–328, 1930; vol. 42, pp. 80–82, 213–216, 1931; vol. 44, pp. 239–245, 1933. The Editors.]

On June 23, 1941, the junior author netted a single perfect male of *Pieris napi* L. which shows marked melanism. The unique specimen was taken in a small swamp at about 9,000′ alt., one mile east of Eldora, Boulder Co., Colo. The writers were in some confusion as to the identity of the strange specimen, and sent it to Mr. Cyril F. dos Passos, who kindly identified it as a melanistic *Pieris napi pseudonapi* B. & McD., the race commonly occurring in Colorado. It is completely and evenly suffused with a smoky gray. It is of a lighter shade and lacks the brownish cast of the "melanic" *Colias philodice* Godt. on Plate LXVIII, figure 13, of Holland's previously cited book. This capture is here recorded because of its unusual nature and in the hope that it may be of use to geneticists and other biologists studying melanism.

Current Entomological Literature

COMPILED BY THE EDITORIAL STAFF.

Under the above head it is intended to note papers received at the Academy of Natural Sciences of Philadelphia and the University of Pennsylvania, pertaining to the Entomology of the Americas (North and South), including Arachnida and Myriopoda. Articles irrelevant to American entomology will not be noted; but contributions to anatomy, physiology and embryology of insects, however, whether relating to American or exotic species will be recorded.

This list gives references of the current or preceding year unless otherwise noted. Continued papers, with few exceptions, are recorded only at their first installment.

For records of Economic Literature, see the Experiment Station Record, Office of Experiment Stations, Washington. Also Review of Applied Entomology, Series A, London. For records of papers on Medical Entomology, see Review of Applied Entomology, Series B.

NOTE: The figures within brackets [ ] refer to the journal in which the paper appeared, as numbered in the List of Journals given at the end of the literature. The number of the volume, and in some cases, the part, heft, &c. is followed by a colon (:). References to papers containing new forms or names not so stated in titles are followed by (*); if containing keys are followed by (k); papers pertaining exclusively to Neotropical species, and not so indicated in the title, have the symbol (S).

Papers published in ENTOMOLOGICAL NEWS are not listed.

GENERAL.—CHAMPION, H. C.—Entomology and nature preservation in post-war reconstruction. [8] 79: 1–4. CLARK, W. A.—Dragonfly attacked by wasp. [9] 75: 263. DARLINGTON, P. J.—Carabidae of mountains and islands: Data on the evolution of isolated faunas and on atrophy of wings. [27] 13 (1): 39–61, ill. FARRAH & REED.—Insect survival in drying grain. [12] 35: 923–28. HARRIS, K. L.—Some applications of insect separation methods to entomology. [10] 45: 19–23. LIEBMANN, E.—A method for the study of invertebrate blood

in vitro. [68] 97: 146. McCLURE, H. E.—Aspection in the biotic communities of the Churchill Area, Manitoba. [27] 13 (1): 1–35, ill. MELENEY, H. E.—The rôle of parasitologists in World War II [17] 29: 1–7. PAX, Jos. C.—Necrologia. [104] 11: 382. PODTIAGUIN, B.—(See under Hemiptera.) PUTMAN, W. L.—Host plants and parasites of some lepidopterous larvae. [4] 74: 219–24. RILEY, N. D.—Methods of study of wild populations. [109] 8: 2. SMITH & DEBACH.—Measurement of the effect of entomophagous insects on population densities of their hosts. [12] 35: 845–49. WHITING, P. W.—The parasitic wasp Habrobracon as class material. [118] 16: 51–53, ill.

ANATOMY, PHYSIOLOGY, ETC.—BREHME & DEMEREC.—A survey of malpighian tube color in the eye color mutants of Drosophila melanogaster. [Growth] 6: 351–356. COOK, S. F.—Nonsymbiotic utilization of carbohydrates by the termite Zootermopsis angusticollis. [23] 16: 123–128. CROMBIE, A. C.—The effect of crowding upon oviposition of grain-infesting insects. [33] 19: 311–340. D'ROZARIO, A. M.—On the development and homologies of the genitalia and their ducts in Hymenoptera. [36] 92: 363–415, ill. FLANDERS, S. E.—Abortive development in parasitic Hymenoptera, induced by the food-plant of insect host. [12] 35: 834–35. GRAYSON & TAUBER.—Carotin—The principal pigment responsible for variation in coloration of the adult grasshopper Melanoplus bivittatus. [Iowa Sta. Col. Jour. Sci.] 17: 191–96. HICKIN, N. E.—The food and water requirements of Ptinus tectus (Ptin.). [107] 17: 99–108. HODGE, C. W. The internal anatomy of Leptysma marginicollis (Serv.) and of Opshomala vitreipennis (Maroch) (Acridid). [57] 72: 84–124. HULLS, L. G.—Entomology in ultra-violet light. [9] 75: 250–54. JAHN & WULFF.—Electrical aspects of a diurnal rythm in the eye of Dyticus fasciventris. [23] 16: 101–109. KALMUS, H.—Narcosis and asphyxiation in some species and mutants of Drosophila. [33] 19: 238–254. KRALL & JONES.—Morphology of the digestive tract of Cynaeus angustus, a tenebrionid. [Iowa Sta. Coll. Jour. Sci.] 17: 221–26, ill. TIEGS, O. W.—The dorsal organ of the embryo of Campodea. [53] 84: 35–48.

ARACHNIDA AND MYRIOPODA.—Branch, J. H.—Notes on California spiders. [38] 41: 138–40, ill. Di Stephano, H. S.—Effects of silver nitrate on the pigmentation of Drosophila. [90] 77: 94–96. Wheeler, C. M.—A contribution to the biology of Ornithodoros hermsi. [17] 29: 33–41.

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This column is intended only for wants and exchanges, not for advertisements of goods for sale or services rendered. Notices not exceeding three lines free to subscribers.

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